

From: [Lisa Kusnierz](#)
To: [Schmidt, Christian](#)
Subject: RE: monitoring locations
Date: 01/22/2013 03:36 PM

Hmmm, pretty crazy stuff. Yeah, it mostly makes sense but it seems that streams going in to Bozeman Creek need to be protective of the downstream use. Since they do not originate in the Gallatin Absaroka, it seems like the Middle Rockies TP criterion would apply but the Bozeman TN value would apply.

That's wild about the irrigation stuff. It makes sense but then seems like it could make it hard for them to meet the target as long as the canal mixes with Mandeville and Catron Creeks even if they are improving practices throughout the watershed.

Lisa Kusnierz
U.S. EPA, Montana Office
10 West 15th Street, Suite 3200
Helena, MT 59626
Kusnierz.Lisa@epa.gov
(406) 457-5001

▼ "Schmidt, Christian" ---01/22/2013 01:53:05 PM---Lisa, The numeric target values for Bozeman Creek were based on the reference datasets for the Middl

From: "Schmidt, Christian" <CSchmidt2@mt.gov>
To: Lisa Kusnierz/MO/R8/USEPA/US@EPA
Date: 01/22/2013 01:53 PM
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Lisa,

The numeric target values for Bozeman Creek were based on the reference datasets for the Middle Rockies (Level III) and Absaroka-Gallatin-Volcanics (Level IV) and, simply put, the relative volume of discharge at the mouth of Sourdough Canyon that is observed at the mouth of Bozeman Creek. Essentially, what percentage of the flows at the mouth of Bozeman Creek may be linked to the watershed above the mouth of Sourdough Canyon and what percentage is linked to the watershed between the canyon mouth and the mouth of Bozeman Creek. Matthew Bird and Limestone Creeks would have Middle Rockies targets. Nash Spring Creek is an interesting case, because if I remember correctly flows are diverted near of mouth of Sourdough Canyon to the west and some of these water appear to enter Nash Spring Creek. I did not investigate whether the diversions are natural or man-made as I was not concerned with a listing on Nash Spring Creek.

Another issue to be aware of, Mandeville and Catron Creeks receive some flows from the extensive irrigation canal networks including Farmers Canal and the Middle Creek Canal which both divert flows from Hyalite Creek. Given that irrigation canals are considered man-made conveyances, the water quality targets would not be altered from the Middle Rockies targets.

Does this make sense?

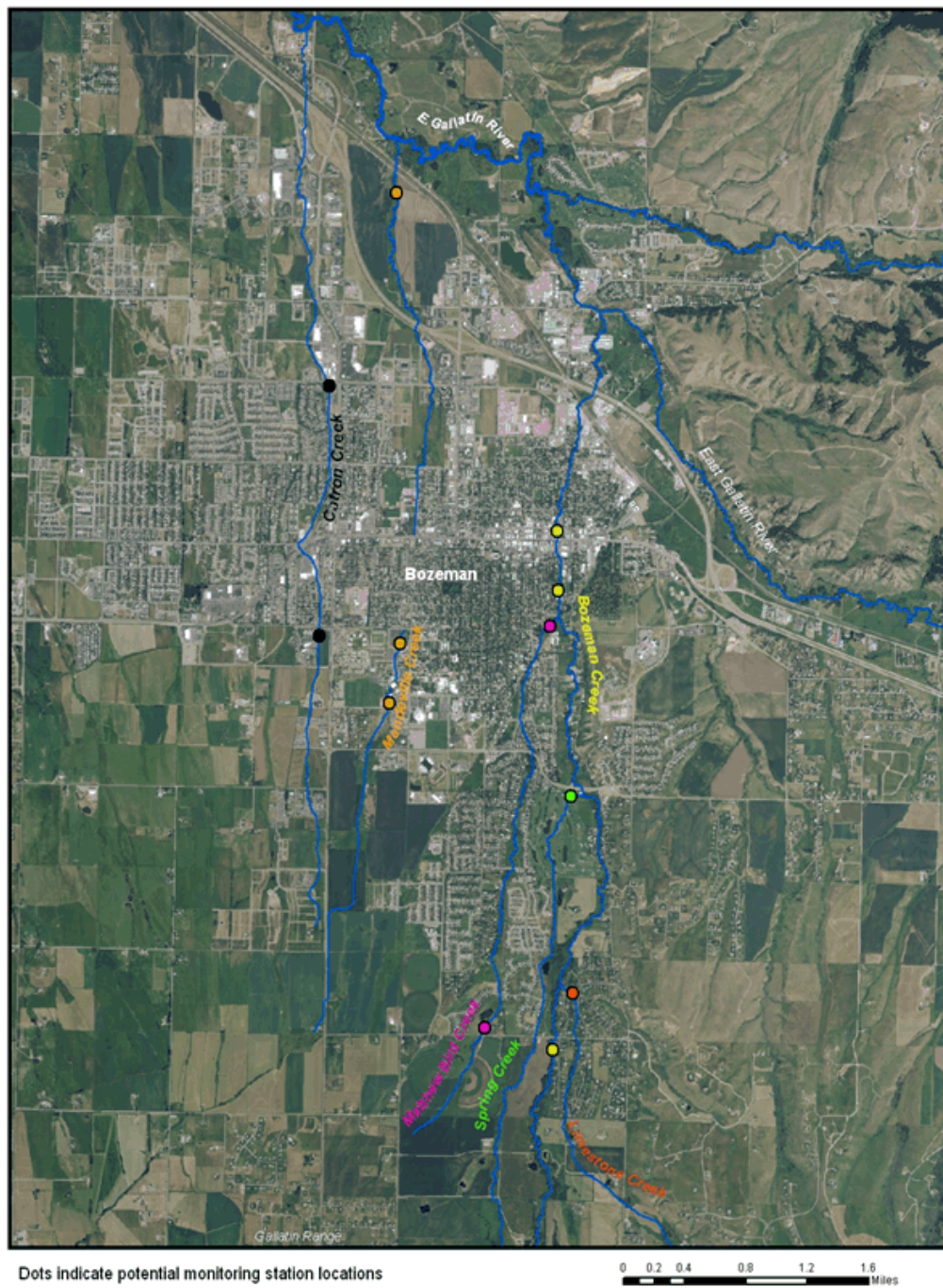
Let me know if you have questions,
Christian

Christian Schmidt
Senior TMDL Planner, MT DEQ
406-444-6777
cschmidt2@mt.gov

From: Kusnierz.Lisa@epamail.epa.gov [mailto:Kusnierz.Lisa@epamail.epa.gov]
Sent: Tuesday, January 22, 2013 1:32 PM
To: Schmidt, Christian
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Here's the map of the proposed monitoring locations. They couldn't establish sites on Spring or Limestone but in looking at it, would they (and Matthew Bird) have the same values as Bozeman Creek because they flow into it whereas Mandeville and Catron would have the Middle Rockies values?

Figure 1. Proposed Monitoring Stations for Urban Water Project



Lisa Kusnierz
U.S. EPA, Montana Office
10 West 15th Street, Suite 3200
Helena, MT 59626
Kusnierz.Lisa@epa.gov
(406) 457-5001

